CITY OF COLORADO SPRINGS SOUTH DOWNTOWN RAILROAD UNDERPASS RECONSTRUCTION

NEIGHBORHOOD MEETINGS MAY 21TH





Purpose

The City of Colorado Springs has initiated a study to determine the best approach for redesign and optimal placement of two railroad bridges at the south end of downtown Colorado Springs.

The aging bridges over South Nevada Avenue (70 years old) and S. Tejon Street (115 years old) are in poor condition and require replacement.





Major Issues

- Existing Bridge Age & Condition
- Inadequate Vertical
 Clearance at Bridges
- Pedestrian & Roadway Safety Issues
- Railroad Operations & Maintenance
- Lack of Connectivity





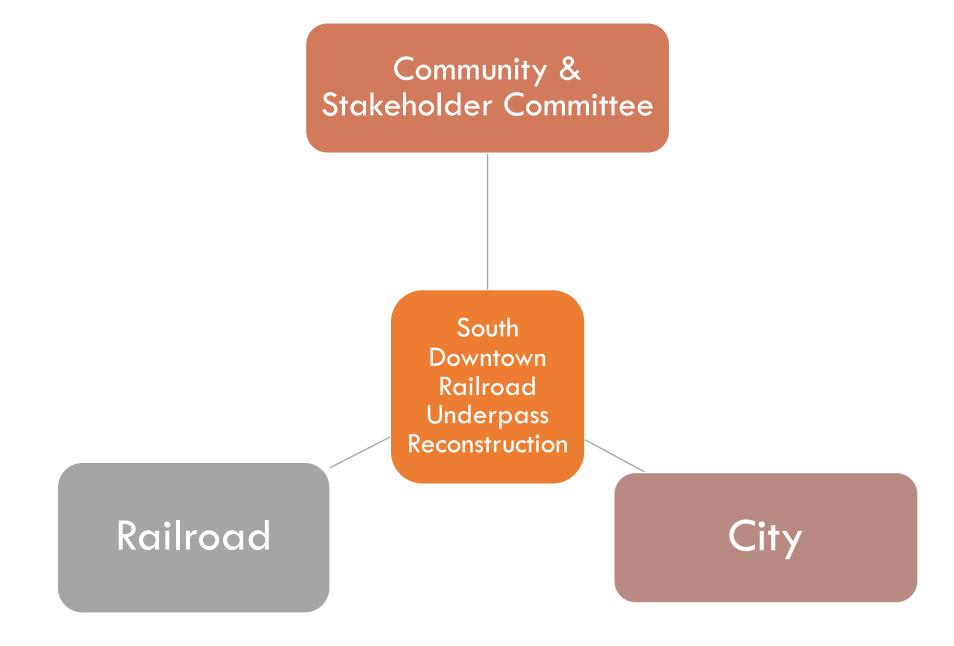
Schedule & Funding

- Planning Effort through January 2020
- Preliminary & Final
 Design February 2020 to
 June 2021
- Construction not scheduled or funded





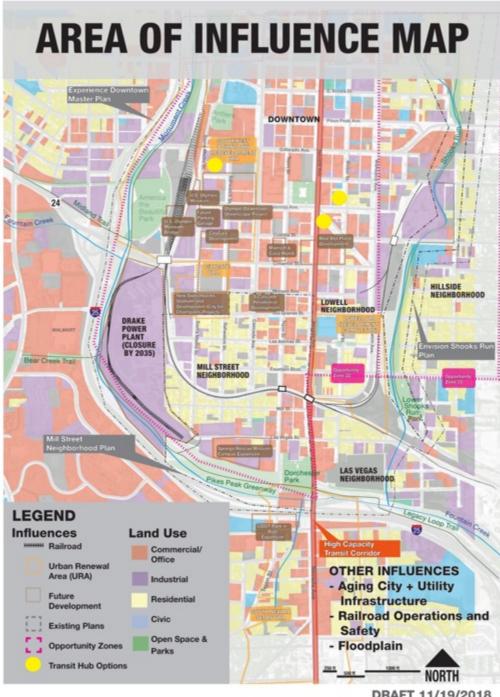
akeholders



Goals – Immediate Needs

- Address existing safety condition issues
- Maintain and improve traffic operations on Nevada Avenue, Tejon Street, and intersecting streets
- Complete a Quiet Zone study and implement the findings
- Design bridges and underpasses to be welcoming and attractive
- Effectively address railroad operational, maintenance and safety needs
- Address cost effectiveness to construct and maintain the bridges
- Engage the public and stakeholders potentially impacted by the project

Southern Downtown Influences



DRAFT 11/19/2018

Goals — For the Future

- Gain understanding of the long-term needs and opportunities for this public infrastructure
- Address pedestrian and bicycle connectivity and safety across the railroad tracks
- Design bridges and associated improvements that are compatible with and improve access to surrounding neighborhoods and land uses, and are supportive of development opportunities
- Develop an improvement program and funding strategy to provide financing through a combination of City, regional, federal, state and railroad sources
- Develop beneficial internal and external City partnerships

Schedule

Study Initiation /Planning/ Stakeholder Engagement Preliminary Design Final Design and Alternate Project Delivery

Sep. 2018 - January 2020

February 2020 – May 2020

June 2020 – June 2021

Process

Existing Conditions & Project Purpose Goals	Screening Level 1: Alternatives and Components	Screening Level 2: Comparative Evaluation of Stand Alone Alternatives	Screening Level 3: Detailed Screening Criteria for Evaluation of Stand Alone Alternatives
 Project Purpose Overall Goals Approach Long-Term Needs & Opportunities 	1) Project Influences 2) Alternative Elements 3) Design Components	1) Community and Environmental Consideration 2) Technical Evaluation 3) Economic Impacts	1) Detailed Technical Screening Criteria (quantitative evaluation)
PURPOSE: Project Initiation	4) Objectives PURPOSE: 1) ID range of alternatives	PURPOSE: 1) Define short list of alternatives	PURPOSE: 1) Select a preferred alternative for railroad bridge location, Nevada/Tejon road,
	2) Screen out fatally flawed alternatives	2) Define alternative packages	and bridge alternative

Next Steps

Design

Screening Level 1 Summary

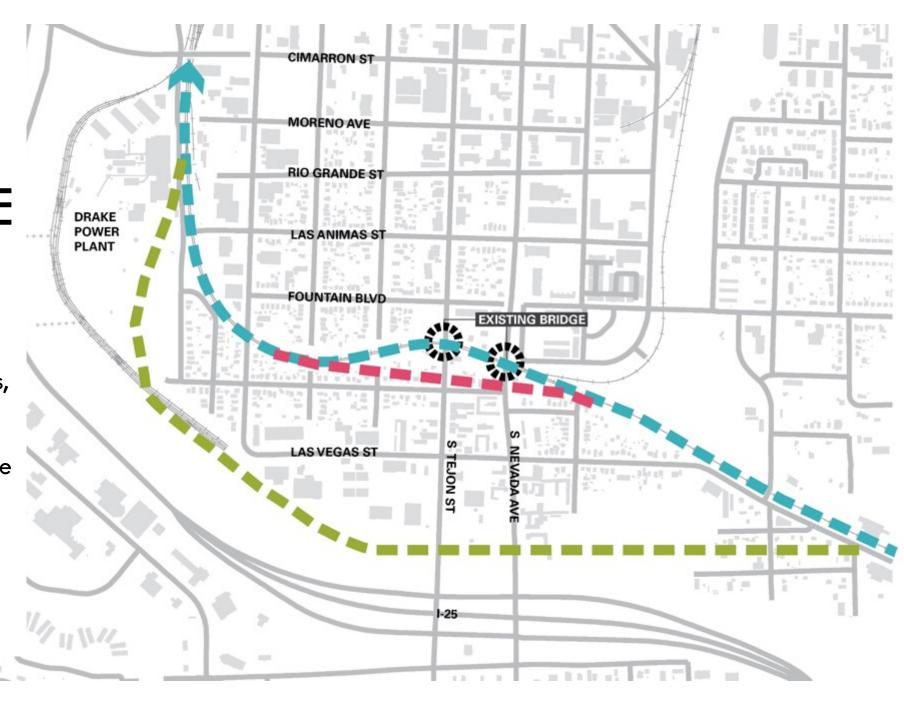
Criteria & Evaluation Approach Summary Table of Eliminated Alternatives and Elements

Description	Measure	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alts. H-L	Element RR-7	Element RR-8	Element RW-2	Element RW-4
Does this alternative address the core bridge condition, inadequate vertical clearance, and rail operational issues?	Yes, No, Maybe	No	No	Yes	Yes	Yes	Maybe	Maybe	Yes	Yes	Yes	Yes	Yes
Would existing roadway or railroad safety issues be addressed?	Yes, No, Maybe	No	No	Yes	Yes	Yes	Maybe	Maybe	Yes	Yes	Yes	Yes	Yes
Does potential exist for alternative to help implement or be consistent with existing community plans?	Yes, No, Maybe	No	No	No	Maybe	Maybe	No	No	Yes	No	No	No	No
Would the impacts and costs be reasonable or are there unknowns that inhibit consideration of the alternative at this time?	Yes or No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No
Will this alternative be a relevant influence or support plans and opportunities to address gateways, land-use, multi-modal uses, transportation, and connectivity?	Supports, Partially Supports, or Does Not Support	Does not Support	Does not Support	,	Partially Supports	Partially Supports	Supports	Supports	Supports	Does not Support	Does not Support	Does not Support	Does not Support
Level 1 Screening Decision	Eliminate, Retain, or Future Consideration		Eliminate	Eliminate	Eliminate	Eliminate	Future Consideration	Future Consideration	Retain	Eliminate	Eliminate	Eliminate	Eliminate

Retained Alternatives

RETAINED ALTERNATIVE GROUPS

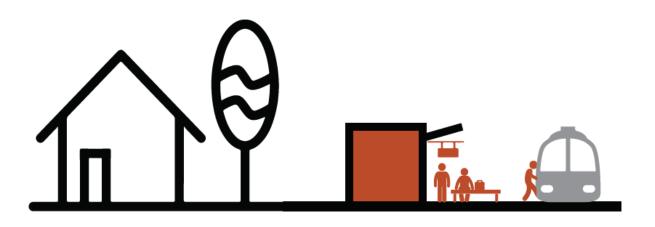
Three groups of alternatives, that roughly follow the railroad corridors shown, were retained. These will be developed into several alternatives for further evaluation in Level 2.



Alternatives Set Aside for Future Consideration

FUTURE CONSIDERATION ALTERNATIVE F

Commuter Rail Service in Corridor



Intent of Alternative:

Study the ability to share the rail corridor with passenger rail.

Reason to Designate for Future Consideration:

- 1. Beyond scope of this project effort due to the significant effort to make this alternative feasible beyond the study area.
- 2. Currently there is a committee of statewide officials working on this concept. The City desires a downtown station, but the planning effort has not advanced to a level where this is a known part of the proposed system.
- 3. Approach can be included as a component within a single selected rail alignment alternative defined within this planning effort:
 - Addresses continued bridge use and safety issues.
 - Provides potential opportunity for improvement of the Southern Downtown area.

FUTURE CONSIDERATION ALTERNATIVE G

Hyperloop Rail Service in Corridor



Intent of Alternative:

Acknowledge futuristic transportation modes.

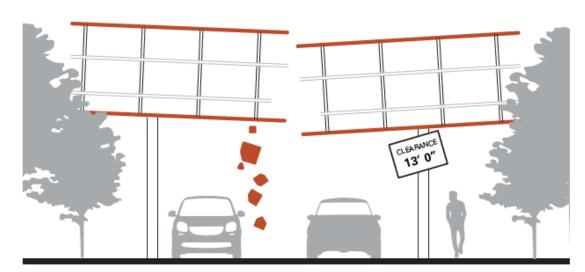
Reasons to Designate for Future Consideration:

- Rocky Mountain Hyperloop feasibility study is underway including potential alignment alternative for Colorado Springs. However, not enough of the approach is defined at this stage to inform adequate evaluation.
- Not compatible with current community and statewide plans; because of newness of this alternative, no community plans have considered the Hyperloop.
- 3. Approach can be included as a component within a single selected rail alignment alternative defined within this planning effort:
 - Addresses continued bridge use and safety issues.
 - Provides potential opportunity for improvement of the Southern Downtown area.

Eliminated Alterantives

ELIMINATED ALTERNATIVE A

No Action



Intent of Alternative:

Baseline alternative to confirm there is a need for a change or action.

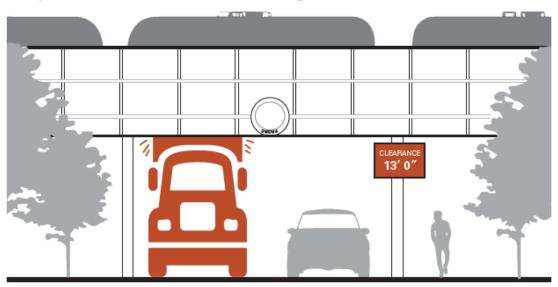
Cost: \$

Reasons to Eliminate:

- 1. Does not address infrastructure needs of project site and area of influence.
- 2. Does not address infrastructure age and condition.
- 3. Not compatible with current community plans.
- 4. Rail safety and operations not addressed; road safety not addressed.
- 5. Does not address bridge height; large commercial vehicles cannot pass under bridges.
- 6. Pedestrian and bicycle mobility and safety not addressed.

ELIMINATED ALTERNATIVE B

Replace Railroad and Bridges in Place



Intent of Alternative:

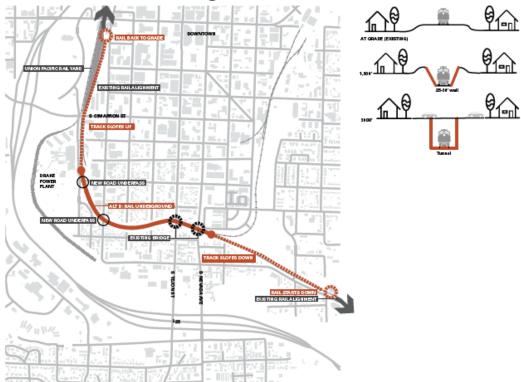
Baseline alternative. Replace with no roadway improvements.

Cost: \$\$

- 1. Does not address bridge height; large commercial vehicles cannot pass under bridges.
- 2. Does not address roadway safety needs.
- 3. Pedestrian and bicycle mobility comfort and safety not addressed.
- 4. Requires a temporary railroad connection during construction.
- 5. Not compatible with current community plans.

ELIMINATED ALTERNATIVE D

Relocate Rail Underground



Intent of Alternative:

Study options for grade-separated road crossings and rail noise reduction.

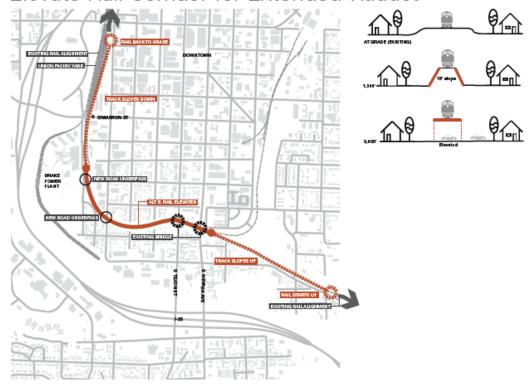
Cost: \$\$\$\$

Reasons to Eliminate:

- 1. Not compatible with current community plans.
- 2.Creation of 30'+ walls adjacent to rail.
- 3. Approximately 3,000 feet or more needed to tie into existing elevations before/after rail goes underground.
- 4. Significant impacts to underground utilities and streets.
- 5. Does not appear to be practical due to complexity and cost.

ELIMINATED ALTERNATIVE E

Elevate Rail Corridor for Extended Viaduct



Intent of Alternative:

Study options for grade-separated road crossings in corridor.

Cost: \$\$\$\$

- 1. Not compatible with current community plans.
- 2. Increases train and rail infrastructure visibility in neighborhood.
- 3. Approximately 3,000 feet or more needed to tie into existing elevations before/after rail is elevated.
- 4. Impacts to overhead utilities; railroad would have to be raised 10 feet or more at Tejon St. and Nevada Ave.
- 5. Does not appear to be practical due to complexity or cost.

ELIMINATED ALTERNATIVE RR-7

North Shift of Rail Alignment



Intent of Alternative:

Determine if straightening the rail line to the north is a viable solution to smooth the rail alignment.

Cost: \$\$\$

Reasons to Eliminate:

- 1. Alternatives H, I, and J accomplish the same types of benefits in better, less costly and impactful ways.
- 2. Not compatible with current community plans.

ELIMINATED ALTERNATIVE RR-8

Shift Rail Alignment to Las Vegas St.



Intent of Alternative:

Study options for south alignment shift using existing street right-of-way.

Cost: \$\$\$

- 1. Does not appear practical due to complexity, cost, and impacts.
- 2. Significant impacts to the Las Vegas Street corridor and need to purchase of properties.
- 3. Alternatives K and L would accomplish the same benefits in better and less costly and impactful ways.

ELIMINATED ELEMENT RW-2

Nevada Ave. and Tejon St. One-way Pair



Intent of Alternative:

Provide increased traffic capacity during times of high traffic volume.

Cost: \$

Reasons to Eliminate:

- Not compatible with current community plans.
- Does not appear to provide additional opportunity for improvement of the Southern Downtown area.

ELIMINATED ELEMENT RW-4

Close Tejon St. to Create a Single Railroad Underpass



Intent of Alternative:

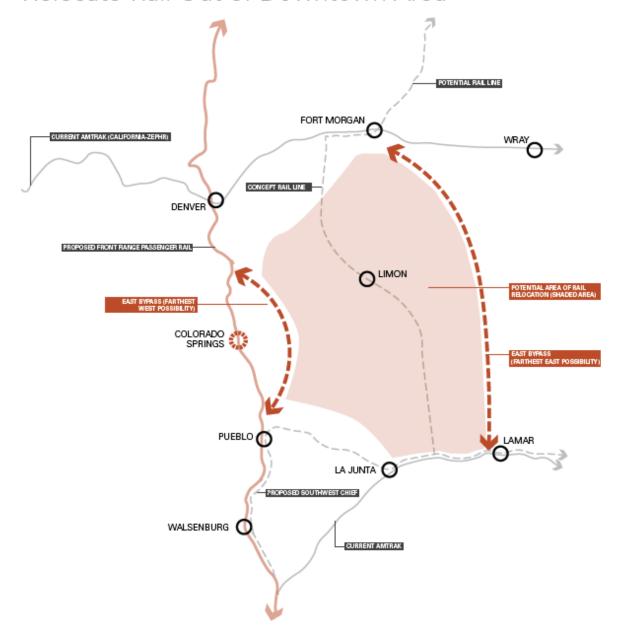
Remove the Tejon Street bridge and close the street at the rail crossing.

Cost: \$

- Not compatible with current community plans.
- Further reduces the already limited access to, and south of, I-25 including the South Nevada URA.
- 3. Provides very limited opportunity for improvement of the Southern Downtown area.

ELIMINATED ALTERNATIVE C

Relocate Rail Out of Downtown Area



Intent of Alternative:

Understand long-term freight rail service line locations.

Cost \$\$\$\$\$\$

- Beyond scope of this project's planning effort. More appropriate for a multi-jurisdictional effort.
- 2. Not compatible with current community or state plans.
- 3. No significant investments in entirely new freight rail lines or corridors are planned in Colorado. State-wide feasibility study of a freight rail "East Bypass" ended in 2012.
- 4. Does not appear to be practical due to complexity or cost.
- 5. Would not recommend potential for future commuter rail.

Screening Level 2 Evaluation Criteria

Engineering Impacts and Benefits

1 Railroad Operations

Improved Rail Operations
Reduction of Rail Maintenance Activities

2 Road Function and Mobility

Road Geometric Design Requirements Vehicular Connectivity Transit Service

3 Incident Management (Safety)

Railroad Safety Road Safety and Operations Bridge Condition

4 Construction Impacts

Property & Right of Way
Drainage, Channels and Stormwater
Utility Impacts
Upgrade Existing Utilities

5 Ease of Implementation

Restrictions/Regulatory Obstacles Right-of-Way Acquisition Complexity Phasing

Screening Level 2 Evaluation Criteria

Financial Impacts and Benefits

6 Project Costs

Project Improvement/Construction Costs

Maintenance Costs

Funding and Economic Benefits

Ease of Obtaining Funding

Additional Financing Opportunities

Economic Development Opportunities

Rail Economic Opportunties

Rail Improvement Cost Savings

8 Vitality of Downtown and the City of Colorado Springs

Economic Growth

Economic Vitality-Tourism

Maintain or Improve Transportation of Goods via

the Railroad

Facilitates Implementation of Master Plans

Commercial Corridor Streetscape Conditions

Screening Level 2 Evaluation Criteria

Community and Environmental Impacts and Benefits

9 Enhance the Quality of Life for Residents

Community Safety

Rail noise reduction

Air Quality

Tree and Vegetation Quality

Visual impact of litter and infrastructure

Stormwater management and water quality

10 Cultivate Neighborhood Character

Small homes and working-class neighborhood retention Historic structure and design elements restoration/ preservation Neighborhood Identification Features

11 Reconnect People and Places

Access to Key Amenities and Public Places
Bicycle and pedestrian connectivity and conditions
Infill and activation
Community cohesion

12 Create a Resilient Future for Neighborhoods

Retain and attract businesses

Retain affordable housing stock

Discourage resident displacement

Encourage mixed use and mixed income development

Encourage redevelopment to be compatible with existing land uses

